		Committed Backlog Items	Tasks	Who?	Not Started	In Progress	Completed
PBI #1		PBI #1 - Generate error messages	PBI time: 8hr	Alex		x	
As	an election official using the voting system software	0.5hr	Catch error conditions	Alex			x
I want	the program to provide appropriate error messages if a bad ballot file is passed in	0.5hr	Generate useful error messages	Alex			x
So that	I can fix the file and provide the correctly formatted file	0.5hr	Cleanly resolve error	Alex			x
		4hr	Fuzz via AFL++	Alex			x
Acceptance Criteria	Generate appropriate errors for empty ballot files, files with parse problems	0.5hr	Documentation	Alex			x
	Generate an error if unable to parse input CSV file; accept correctly formatted CSV						
	files; No compilation error; unit tests for each method and agreed amount of						
	system tests pass; correct output	1hr	Write new unit tests	Alex			X
Effort	Medium (~5-6 hours)	0.1hr	Run new unit tests	Alex			Х
		0.5hr	Write new system tests	Alex			X
		0.1hr	Run new system tests	Alex			X
		0.15hr	Write unit test logs	Alex	Х		
		0.15hr	Write system test logs	Alex	X		
PBI #2		PBI #2 - Resolve ties via coin flip	PBI time: 3.5hr	Alex		X	
As	an election official using the voting system software	1hr	Add new functionality	Alex Alex	X		
I want	Candidates or parties with ties to be resolved via a 50/50 coin flip	0.5hr	Documentation		Х		
So that	Ties ae resolved randomly, fairly, and indepdently of other factors	Ihr	Write new unit tests	Alex	Х		
		0.1hr	Run new unit tests	Alex	Х		
Acceptance Criteria	Ties between candidates or between parties can be resolved randomly	0.5hr	Write new system tests	Alex	Х		
	Ties between candidates or between parties can be resolved randomly; No compilation error; unit tests for each method and agreed amount of system tests						
Definition of Done	pass; correct output	0.1hr	Run new system tests	Alex	x		
Effort	Small (~2-3 hours)	0.15hr	Write unit test logs	Alex	x		
		0.15hr	Write system test logs	Alex	x		
PBI #3		PBI #3 - VotingSystem api has one method for election		Alex			x
As	a developer	0.1hr	Rewrite old calls in Election	Alex			x
	to be able to create and run an election, easily. The electables field is not						
I want	populated unless three additional functions are celled in order	0.5hr	Documentation	Alex			x
So that	The probability of logic errors are reduced and the system is easily extensible.	1hr	Write new unit tests	Alex			x
		0.1hr	Run new unit tests	Alex			x
	A new method is added to votingSystem to automatically call processElectables(),						
Acceptance Criteria	countVotes(), and calculateResults().	0.5hr	Write new system tests	Alex			X
Definition of Done	No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.1hr	Run new system tests	Alex			_
Effort	Small (~2-3 hours)	0.15hr	Write unit test logs	Alex			×
Enon	3.11dii (2.3.11dii 3)	0.15hr	Write system test logs	Alex			^ v
PBI #4		PBI #4 - Multiple files for the CPL algorithm	PBI time: 3.5hr	Ashwin, Alex, Leo		v	^
As	an election official	0.25hr		Alex		^	Y
I want	Multiple files to be brought in for a CPL election						 x
I want So that	Multiple files to be brought in for a CPL election they can bring in different files from different balloting locations	0.25hr	Change GUI functionality to take in multiple files for CPL	Alex			×
I want So that	Multiple files to be brought in for a CPL election they can bring in different files from different balloting locations		Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read				x x
		0.25hr	Change GUI functionality to take in multiple files for CPL	Alex	x		x x
So that		0.25hr 1hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file	Alex Leo	x x		x x
So that Acceptance Criteria	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of sustem	0.25hr 1hr 0.5hr 0.1hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written	Alex Leo Ashwin	x x		x x
So that Acceptance Criteria	they can bring in different files from different balloting locations Multiple csv input files for CPL election being read correctly at the same time	0.25hr 1hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files	Alex Leo Ashwin	x x	х	x
So that Acceptance Criteria Definition of Done	they can bring in different files from different balloting locations Multiple csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.25hr 1hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests to make sure system still functions	Alex Leo Ashwin Ashwin	x x	x	x
So that Acceptance Criteria	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of sustem	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly	Alex Leo Ashwin Ashwin Leo	x x	x	x x
So that Acceptance Criteria Definition of Done	they can bring in different files from different balloting locations Multiple csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests	Alex Leo Ashwin Ashwin Leo Leo	x x	x x x	x
So that Acceptance Criteria Definition of Done Effort	they can bring in different files from different balloting locations Multiple csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin	x x	x x	x
So that Acceptance Criteria Definition of Done	they can bring in different files from different balloting locations Multiple csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (~2-3 hours)	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr PBI #5 - Multiple files for the OPL algorithm	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI times 3.5hr	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin,	x x	x x x	x
So that Acceptance Criteria Definition of Done Effort PBI #5 As	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr 0.5hr PBI #5 - Multiple files for the OPL algorithm 0.25hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CLI functionality to take in multiple files for OPL	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin	x x	x x x	x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr Pil #5 - Multiple files for the OPL algorithm 0.25hr 0.25hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CUI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin, Leo Ashwin Ashwin	x x	x x x	x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr 0.5hr PBI #5 - Multiple files for the OPL algorithm 0.25hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run integration tests for CPL multiple files Run integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CLI functionality to take in multiple files for OPL Code functionality to take in multiple files for OPL Code functionality for multiple files read	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin	x x	x x x	x x x x x x x x x x x x x x x x x x x
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So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr PBI #5 - Multiple files for the OPL algorithm 0.25hr 0.25hr 1hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CUI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin Ashwin Ashwin Leo Ashwin Ashwin Leo	x x	x x x	x x x x x x x x x x x x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr 0.5hr 0.5hr 0.5hr 0.5hr 0.5hr 0.25hr 1.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI times: 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x	x x x x x x x x x x x x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr PBI #5 - Multiple files for the OPL algorithm 0.25hr 0.25hr 1hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CUI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x x	x x x x x x x x x x x x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr 0.5hr 0.5hr 0.5hr 0.25hr 1hr 0.5hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI times 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run Integration tests for OPL multiple files	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin, Leo Leo Leo Leo Leo Leo Leo	x x	x x x x	x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr 0.5hr 0.5hr 0.25hr 1hr 0.5hr 0.5hr 0.1hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI times: 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run Integration tests for OPL multiple files Run Integration tests to make sure system still functions	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin Ashwin Leo Leo Leo Leo Leo Leo Leo Leo Leo	x x	x x x x	x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr 0.5hr 1.5hr 0.25hr 0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run integration tests for CPL multiple files Run integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run integration tests for OPL multiple files Run integration tests to make sure system still functions correctly Write test logs for unit and integration tests	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin, Leo	x x	x x x x x	x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done Effort	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr 0.5hr 0.25hr 1hr 0.5hr 0.5hr 0.1hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write boxygen documentation for new methods written PBI time: 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x x x	x x x x x x x x x x x x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compliction error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours)	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr 0.5hr 0.5hr 0.5hr 0.5hr 0.25hr 0.25hr 1hr 0.5hr 0.5hr 0.5hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write boxygen documentation for new methods written PBI times: 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run integration tests for oPL multiple files Write new unit tests for make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI times: 3hr	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x x x x x x x	x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done Effort	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No complication error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr 0.5hr 0.25hr 1hr 0.5hr 0.5hr 0.1hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run integration tests for CPL multiple files Run integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CUI functionality to take in multiple files for OPL Code functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3hr WPO can read MPO file	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x x x x x x	x x x x x x x x x x x x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done Effort PBI #6 As	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error, unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time No compilation error, unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr PBI #5 - Multiple files for the OPL algorithm 0.25hr 0.25hr 1hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write boxygen documentation for new methods written Write Doxygen documentation for new methods written PBI times: 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3hr MPO correctly inherits from VotingSystem and	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x x x x	x x x x x x x x x x x x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done Effort PBI #6 As I want	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official MPO election ballots to be brought in via a .csv file	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr 0.5hr 0.5hr 0.25hr 1hr 0.5hr 0.5hr 0.1hr 0.5hr 0.5hr 0.1hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write Doxygen documentation for new methods written PBI times 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run integration tests for OPL multiple files Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI times 3hr MPO can read MPO file MPO correctly inherits from VotingSystem and implements all required methods	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x x x x x x x x x x x x x	x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done Effort PBI #6 As	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error, unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple .csv input files for OPL election being read correctly at the same time No compilation error, unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr 0.5hr PBI #5 - Multiple files for the OPL algorithm 0.25hr 0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run integration tests for CPL multiple files Run integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CUI functionality to take in multiple files for OPL Code functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run Integration tests for oPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3hr MPO can read MPO file MPO correctly inherits from VotingSystem and implements all required methods Write unit tests for added functionality	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin, Leo	x x	x x x x x x x x x x x x x x x	x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done Effort PBI #6 As I want	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official MPO election ballots to be brought in via a .csv file	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr 0.5hr 0.5hr 0.25hr 1hr 0.5hr 0.5hr 0.1hr 0.5hr 0.5hr 0.1hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run Integration tests to make sure system still functions correctly Write Lest logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CLI functionality to take in multiple files for OPL Change GUI functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple files functionality Run new unit tests for new methods written Write integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3hr MPO correctly inherits from VotingSystem and implements all required methods Write unit tests for added functionality Run unit tests	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin Leo	x x	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
So that Acceptance Criteria Definition of Done Effort PBI #5 As I want So that Acceptance Criteria Definition of Done Effort PBI #6 As I want So that	they can bring in different files from different balloting locations Multiple .csv input files for CPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official Multiple files to be brought in for an OPL election they can bring in different files from different balloting locations Multiple csv input files for OPL election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system tests pass; correct output Small (-2-3 hours) an election official MPO election ballots to be brought in via a .csv file	0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.3hr 0.5hr PBI #5 - Multiple files for the OPL algorithm 0.25hr 0.25hr 1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.1hr 0.5hr 0.5hr 0.5hr	Change GUI functionality to take in multiple files for CPL Code functionality for multiple files read Write new unit tests for new methods for CPL multiple file functionality Run new unit tests for new methods written Write integration tests for CPL multiple files Run integration tests for CPL multiple files Run integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3.5hr Change CUI functionality to take in multiple files for OPL Code functionality to take in multiple files for OPL Code functionality for multiple files read Write new unit tests for new methods for OPL multiple file functionality Run new unit tests for new methods written Write integration tests for OPL multiple files Run Integration tests for oPL multiple files Run Integration tests to make sure system still functions correctly Write test logs for unit and integration tests Write Doxygen documentation for new methods written PBI time: 3hr MPO can read MPO file MPO correctly inherits from VotingSystem and implements all required methods Write unit tests for added functionality	Alex Leo Ashwin Ashwin Leo Leo Leo Ashwin Ashwin, Leo Ashwin Ashwin, Leo	x x	x x x x x x x x x x x x x x x x x x x	x x x x x x

	lu an original contra de la contra dela contra de la contra del la contra del la contra del la contra de la contra de la contra del la contra de la contra del la contra del la contra de la contra del la contr						
Definition of Done	No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.1hr	Run integration tests	Leo		x	
Effort	Small (~2-3 hours)	0.15hr	Write unit test logs	Leo		x	
		0.15hr	Write system test logs	Leo		x	
		0.5hr	Write Doxygen documentation for new methods written	Leo		x	
PBI #7		PBI #7 - MPO multiple files	PBI time: 2.7hr	Alex, Ashwin, Leo		x	
As	an election official	0.1hr	Change CLI functionality to take in multiple files for MPO	Alex			x
I want	Multiple files to be brought in for a MPO election	0.1hr	Change GUI functionality to take in multiple files for MPO				x
So that	they can bring in different files from different balloting locations	0.5hr	Code functionality for multiple files read	Leo			x
			Write new unit tests for new methods for MPO multiple				
		0.5hr	file functionality	Ashwin	x		
Acceptance Criteria	Multiple .csv input files for MPO election being read correctly at the same time	0.1hr	Run new unit tests for new methods written	Ashwin	х		
Definition of Done	No compilation error; unit tests for each method and agreed amount of system tests pass; correct output	0.5hr	Write integration tests for MPO multiple files	Ashwin	x		
			Run Integration tests to make sure system still functions				
Effort	Small (~2-3 hours)	0.1hr	correctly	Ashwin	х		
		0.3hr	Write test logs for unit and integration tests	Leo		X	
		0.5hr	Write Doxygen documentation for new methods written	Leo		X	
PBI #8		PBI #8 - MPO election	PBI time: 4.5hr	Alex, Leo, Ashwin		x	
As	an election official	1hr	Break RawData::ParseFile() into sub functions	Alex			x
	to write an algorithm that determines multiple winners based on the candidates						
I want	receiving the most ballots with a fair coin toss	0.5hr	Change header line read order based on election type	Alex			x
So that	an MPO election can be run by the voting system	1hr	Add new functionality	Leo		X	
		0.5hr	Write unit tests for added functionality	Leo		X	
Acceptance Criteria	MPO algorithm correctly calculates the winners and losers and fairly determines ties if there are any	0.1hr	Run unit tests	Leo		×	
Definition of Done	No compilation error; unit tests for each method and agreed amount of system tests pass; correct and fair output	0.5hr	Write integration tests to make sure the system still works as intended	Leo		×	
Effort	Large (~6-7 hours)	0.1hr	Run integration tests	Leo		X	
		0.15hr	Write unit test logs	Ashwin		x	
		0.15hr	Write system test logs	Ashwin		x	
		0.5hr	Write Doxygen documentation for new methods written	Ashwin		x	
PBI #9		PBI #9 - MV files in general	PBI time: 3hr	Ashwin, Janani			
As	an election official	0.5hr	RawData can read MV file	Ashwin			
I want	MV election ballots to be brought in via a .csv file	0.5hr	Fileops can read MV file	Ashwin		×	
So that	the election can be run by the MV algorithm in the system	0.5hr	Write unit tests for added functionality	Ashwin		×	
30 that	the election can be for by the FTV digorithm in the system	0.1hr	Run unit tests	Ashwin		^ v	
		0.1111	Write integration tests to make sure the system still	ASHWIII		^	
Acceptance Criteria	.csv input file for MV election being read correctly	0.5hr	works as intended	Janani	x		
	No compilation error; unit tests for each method and agreed amount of system	0.41	B	lunes!			
	tests pass; correct output	0.1hr	Run integration tests	Janani	X		
Effort	Small (~2-3 hours)	0.15hr	Write unit test logs	Janani	X		
		0.15hr	Write system test logs	Janani	X		
		0.5hr	33		X		
PBI #10		PBI #10 - MV multiple files	PBI time: 2.7hr	Alex, Leo		х	
As	an election official	0.1hr	Change CLI functionality to take in multiple files for MV	Alex			X
I want	Multiple files to be brought in for an MV election	0.1hr	Change GUI functionality to take in multiple files for MV	Alex			X
So that	Different files can be brought in from different balloting locations	0.5hr	Code functionality for multiple files read Write new unit tests for new methods for MV multiple file	Leo			×
		0.5hr	functionality	Leo		X	
Acceptance Criteria	Multiple .csv input files for MV election being read correctly at the same time No compilation error; unit tests for each method and agreed amount of system	0.1hr	Run new unit tests for new methods written	Leo		X	
Definition of Done	tests pass; correct output	0.5hr	Write integration tests for MV multiple files	Leo		X	
Effort	Small (-2-3 hours)	0.1hr	Run Integration tests to make sure system still functions correctly	Leo		×	
		0.3hr	Write test logs for unit and integration tests	Leo		X	
		0.5hr	Write Doxygen documentation for new methods written	Leo		X	